

Notice of Allowability	Application No.	Applicant(s)
	09/870,810	RAZ, RYAN
	Examiner	Art Unit
	Wilbert L. Starka, Jr.	2121

— The MAILING DATE of this communication appears on the cover sheet with the correspondence address. All claims being allowable, PROSECUTION ON THE MERITS IS (OR REMAINS) CLOSED in this application. If not included herewith (or previously mailed), a Notice of Allowance (PTOL-85) or other appropriate communication will be mailed in due course. THIS NOTICE OF ALLOWABILITY IS NOT A GRANT OF PATENT RIGHTS. This application is subject to withdrawal from issue at the initiative of the Office or upon petition by the applicant. See 37 CFR 1.313 and MPEP 1308.

1. This communication is responsive to the filing of 04 OCT 2001.
2. The allowed claim(s) is/are 1-28.
3. The drawings filed on 04 October 2001 are accepted by the Examiner.
4. Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(e)-(f).
 - a) All b) Some* c) None of the
 1. Certified copies of the priority documents have been received.
 2. Certified copies of the priority documents have been received in Application No. _____.
 3. Copies of the certified copies of the priority documents have been received in this national stage application from the International Bureau (PCT Rule 17.2(a)).
- * Certified copies not received: _____

Applicant has THREE MONTHS FROM THE 'MAILING DATE' of this communication to file a reply complying with the requirements noted below. Failure to timely comply will result in ABANDONMENT of this application.
THIS THREE-MONTH PERIOD IS NOT EXTENDABLE.

5. A SUBSTITUTE OATH OR DECLARATION must be submitted. Note the attached EXAMINER'S AMENDMENT or NOTICE OF INFORMAL PATENT APPLICATION (PTO-152) which gives reason(s) why the oath or declaration is deficient.
6. CORRECTED DRAWINGS (as 'replacement sheets') must be submitted.
 - (a) Including changes required by the Notice of Draftsperson's Patent Drawing Review (PTO-948) attached
 - 1) hereto or 2) to Paper No./Mail Date _____
 - (b) Including changes required by the attached Examiner's Amendment / Comment or in the Office action of
 Paper No./Mail Date _____
- Identifying indicia such as the application number (see 37 CFR 1.84(e)) should be written on the drawings in the front (not the back) of each sheet. Replacement sheet(s) should be labeled as such in the header according to 37 CFR 1.121(d).
7. DEPOSIT OF and/or INFORMATION about the deposit of BIOLOGICAL MATERIAL must be submitted. Note the attached Examiner's comment regarding REQUIREMENT FOR THE DEPOSIT OF BIOLOGICAL MATERIAL.

Attachment(s)

1. Notice of References Cited (PTO-892)
2. Notice of Draftsperson's Patent Drawing Review (PTO-948)
3. Information Disclosure Statements (PTO-1449 or PTO/SB/08),
Paper No./Mail Date 4/5
4. Examiner's Comment Regarding Requirement for Deposit
of Biological Material
5. Notice of Informal Patent Application (PTO-152)
6. Interview Summary (PTO-413),
Paper No./Mail Date _____
7. Examiner's Amendment/Comment
8. Examiner's Statement of Reasons for Allowance
9. Other _____

Notice of References Cited

Application/Control No.

09/970,610

Applicant(s)/Patent Under

Reexamination

RAZ, RYAN

Examiner

Wilbert L. Starks, Jr.

Art Unit

2121

Page 1 of 1

U.S. PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Name	Classification
A	US-6,665,060 B1	12-2003	Zahniser et al.	356/39
B	US-6,007,998	12-1999	McNamara et al.	435/8
C	US-6,690,817 B1	02-2004	Cabib et al.	382/134
D	US-			
E	US-			
F	US-			
G	US-			
H	US-			
I	US-			
J	US-			
K	US-			
L	US-			
M	US-			

FOREIGN PATENT DOCUMENTS

*	Document Number Country Code-Number-Kind Code	Date MM-YYYY	Country	Name	Classification
N					
O					
P					
Q					
R					
S					
T					

NON-PATENT DOCUMENTS

(Include as applicable: Author, Title Date, Publisher, Edition or Volume, Pertinent Pages)

U	Haykin, Simon, "Neural Networks: A Comprehensive Foundation", Macmillan College Publishing Company, Englewood Cliffs, New Jersey, 1994, pp. 138-229.
V	
W	
X	

*A copy of this reference is not being furnished with this Office action. (See MPEP § 707.05(e).)
 Dates in MM-YYYY format are publication dates. Classifications may be US or foreign.

DETAILED ACTION

Reasons For Allowance

1. **Claims 1-28 are allowed.**
2. **The following is an Examiner's statement of reasons for allowance:**
3. **The cited prior art taken alone or in combination fails to teach the claimed invention of a neural network assisted multi-spectral segmentation system, as claimed by Applicant. Specifically:**
4. **Independent claim 1 discloses an "analyzing step utilizing previously developed classification information for discriminating nuclear or cytoplasmic material, the previously developed classification information being developed from at least one cell of known regions of nuclear or cytoplasmic material."**
5. **The closest prior art of Raz (U.S. Patent Number 6,463,425 B2; dated 08 October 2002; class 706; subclass 20) teaches the claimed invention of a neural network assisted multi-spectral segmentation system, as claimed by Applicant, but fails to teach or suggest an "analyzing step utilizing previously developed classification information for discriminating nuclear or cytoplasmic material, the previously developed classification information being developed from at least one cell of known regions of**

nuclear or cytoplasmic material." To the extent that this feature is not found in the prior art cited by Examiner, the present case is held allowable over the art of record.

6. Independent claim 17 discloses "at least one first digitized image in a wavelength of between 525 to 575 nanometers, at least one second digitized image in a wavelength of between 565 to 582 nanometers, and at least one third digitized image in a wavelength of between 625 to 635 nanometers."

7. The closest prior art of Raz (U.S. Patent Number 6,463,425 B2; dated 08 October 2002; class 706; subclass 20) teaches the claimed invention of a neural network assisted multi-spectral segmentation system, as claimed by Applicant, but fails to teach or suggest "at least one first digitized image in a wavelength of between 525 to 575 nanometers, at least one second digitized image in a wavelength of between 565 to 582 nanometers, and at least one third digitized image in a wavelength of between 625 to 635 nanometers." To the extent that this feature is not found in the prior art cited by Examiner, the present case is held allowable over the art of record.

Conclusion

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

- A. Zahniser et al. (U.S. Patent Number 6,665,060 B1; dated 16 December 2003; class 356; subclass 039) discloses a cytological imaging system and method.
- B. McNamara et al. (U.S. Patent Number 6,007,996; dated 28 December 1999; class 435; subclass 006) discloses an in situ method of analyzing cells.
- C. Cabib et al. (U.S. Patent Number 6,690,817 B1; dated 10 February 2004; class 382; subclass 134) discloses spectral bio-imaging data for cell classification using internal reference.
- D. Haykin, Simon, "Neural Networks: A Comprehensive Foundation", Macmillan College Publishing Company, Englewood Cliffs, New Jersey, 1994, pp. 138-229.

9. Any comments considered necessary by applicant must be submitted no later than the payment of the issue fee and, to avoid processing delays, should preferably accompany the issue fee. Such submissions should be clearly labeled "Comments on Statement of Reasons for Allowance."

10. Any inquiry concerning this communication or earlier communications from the Examiner should be directed to Wilbert L. Starks, Jr. whose telephone number is (703) 305-0027.

Alternatively, inquiries may be directed to the following:

S. P. E. Anthony Knight (703) 308-3179
After-final (FAX) (703) 746-7238
Official (FAX) (703) 746-7239
Non-Official/Draft (FAX) (703) 746-7240

WLS

16 September 2004

Wilbert L. Starks, Jr.
Wilbert L. Starks, Jr.
Primary Examiner
Art Unit - 2121

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O I P E
APR 11 2002
SEARCHED & INDEXED

Substitute for form 1449A/USPTO

INFORMATION DISCLOSURE STATEMENT BY APPLICANT

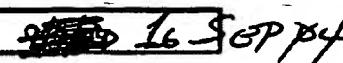
(use as many sheets as necessary)

Sheet 1 of 2 Attorney Docket Number VERACE 3.0-010 CONT Technology Center 2100

U.S. PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Document Number	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document (Class Subclass)	Pages, Column, Line, Where Relevant Passages or Relevant Figures Appear
		Number-Kind Code ² (if known)			
	AA - 5,257,182	10-26-1993	Luck et al.		
	AB - 5,276,771	01-04-1994	Manukian et al.		
	AC - 5,276,772	01-04-1994	Wang et al.		
	AD - 5,331,550	07-19-1994	Stafford et al.		
	AE - 5,412,737	03-02-1995	Gorvin		
	AF - 5,544,650	08-13-1996	Boon et al.		
	AG - 5,587,833	12-24-1996	Kamentzky		
	AH - 5,677,968	10-14-1997	Doerner et al.		
	AI - 5,740,270	04-14-1998	Rutenberg et al.		
	AJ - 5,835,620	11-10-1998	Kaplen et al.		
	AK - 5,889,880	03-30-1999	Doerner et al.		
	AL - 5,939,278	08-17-1999	Boon et al.		

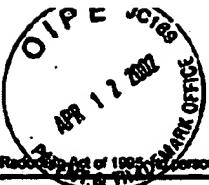
FOREIGN PATENT DOCUMENTS					
Examiner Initials*	Cite No. ¹	Foreign Patent Document	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Column, Line, Where Relevant Passages or Relevant Figures Appear
		Country Code ² -Number-Kind Code ³ (if known)			
	BA - WO 91/15826		10-17-1991	Neuromedical Systems, Inc.	
	BB - WO 91/20048		12-26-1991	Applied Electronic Vision, Inc.	
	BC - WO 92/13308		08-06-1992	Neuromedical Systems, Inc.	
	BD - WO 93/41303		12-19-1993	Neopath, Inc.	
	BE - EP 0525964 A2		02-03-1993	Scilex Corporation Ltd.	
	BF - EP 0587093 A2		03-16-1994	Hitachi, Ltd.	
	BG - EP 0710004 A2		05-01-1998	Sharp Kabushiki Kaisha	
	BH				

Examiner Signature 

Date Considered  16-SEP-04

*EXAMINER: initial if reference considered, whether or not citation is in conformance with MPEP 609. Draw line through citation if not in conformance and not considered. Include copy of this form with next communication to applicant.

¹Applicant's unique citation designation number (optional). ²See attached Kinds Codes of USPTO Patent Documents at www.uspto.gov or MPEP 901.04. ³Enter Office that issued the document, by the two-letter code (WIPO Standard ST.3). For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁴Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁵Applicant is to place a check mark here if English language Translation is attached.



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PTO/SB/088 (10-01)

Approved for use through 10/31/2002. OMB 0651-0031
U. S. Patent and Trademark Office: U. S. DEPARTMENT OF COMMERCE

Substitute for form 1449B/PTO				Complete / Known	
				Application Number	09/970,610
				Filing Date	October 4, 2001
				First Named Inventor	Ryan Raz
				Group Art Unit	2422 - 2121
				Examiner Name	Not Yet Assigned STARKS
Sheet	2	of	2	Attorney Docket Number	VERACE 3.0-010 CONT

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APR 18 2002

Technology Center 2100

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS					
Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city another country where published.			²
WS	CA	EVAN PRESTON, TOM BERGMAN, RON GORENFLO, DAVE HERMANN, ED KOPALA, TOM KUZMA, LARRY LAZOFSON AND RANDY ORKIS, Development Of A Field-Portable Imaging System For Scene Classification Using Multispectral Data Fusion Algorithms, IEEE 1994 National Aerospace & Electronics Conference (NAECON) Dayton, US, 23-27 May, volume 2, pages 1090-1097 XP000647232.			
WS	CB	M. HERBIN, A. VENOT, J.Y. DEVAUX and C. PIETTE, IEEE Transactions On Medical Imaging, vol. 9, no. 3, September 1990, New York, US, pages 262-269, XP000159489.			
	CC	W. REID THOMPSON, Global Four-Band Spectral Classification Of Jupiter's Clouds: Color/Albedo Units And Trends, see page 54, right-hand column, line 20-line 31.			

Examiner Signature	Nicole L. Sestak, Jr.	Date Considered	16 SEP 04
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PTO/SB/08A (10-01)

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Substitute for form T-850, PTO

INFORMATION DISCLOSURE
STATEMENT BY APPLICANT

(use as many sheets as necessary)

Sheet

1

of

1

Complete if Known

Application Number	09/970,610
Filing Date	October 4, 2001
First Named Inventor	Ryan Raz
Art Unit	2423-214 Tex
Examiner Name	Net-Vet Assigned STAAS BODY CENTER 2100

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USPTO

Attorney Docket Number VERACE 3.0-010 CONT

U. S. PATENT DOCUMENTS

Examiner Initials	Cite No. ¹	Document Number Number/Kind Code ² (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
CC	AA	5,889,680	03-30-1999	Doerner et al.	
SP	AB	5,939,278	08-17-1999	Boon et al.	

FOREIGN PATENT DOCUMENTS³

Examiner Initials	Cite No. ¹	Foreign Patent Document Country Code ⁴ -Number/Kind Code ⁵ (if known)	Publication Date MM-DD-YYYY	Name of Patentee or Applicant of Cited Document	Pages, Columns, Lines, Where Relevant Passages or Relevant Figures Appear
CC	BA	WO 97/04419	02-06-1997	Morphometric Technologies Inc.	
BB	WO 97/11350		03-27-1997	Morphometric Technologies Inc.	
BC	WO 99/01842		01-14-1999	Neopath, Inc.	
BD	WO 99/04244		01-28-1999	Accumed International, Inc.	

¹Applicant's unique citation designation number (optional). ²See attached Kind Codes of USPTO Patent Documents at www.uspto.gov or MPEP 801.04. ³Examiner Office that issued the document, by the two-letter code (WIPO Standard ST.3). ⁴For Japanese patent documents, the indication of the year of the reign of the Emperor must precede the application number of the patent document. ⁵Kind of document by the appropriate symbols as indicated on the document under WIPO Standard ST. 16 if possible. ⁶Applicant is to place a check mark here if English language Translation is attached.

OTHER PRIOR ART - NON PATENT LITERATURE DOCUMENTS

Examiner Initials	Cite No. ¹	Include name of the author (in CAPITAL LETTERS), title of the article (when appropriate), title of the item (book, magazine, journal, serial, symposium, catalog, etc), date, page(s), volume-issue number(s), publisher, city and/or country where published.	T ²

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²Applicant's unique citation designation number (optional). ³Applicant is to place a check mark here if English language Translation is attached.